CENCO Refining Co.

12345 Lakeland Road • Santa Fe Springs, CA 90670 • Phone (562) 944-6111 • Fax (562) 903-8911

May 9, 2000

Ms. Florance Gharibian, Chief
Statewide Compliance Branch, Southern California Region
Department of Toxic Substances Control
1011 N. Grandview Ave.
Glendale, CA 91201

Re: Response to summary of violations from the April 5 and 6, 2000 inspection of the CENCO refinery by DTSC

Dear Ms. Gharibian:

CENCO is writing this letter in response to the Department of Toxic Substances Control (DTSC) inspection report dated April 21, 2000. A DTSC inspection team visited the CENCO refinery on April 5, 2000. Upon arrival, the inspection team lead by Ms. Charito Pinon stated that their objective was to inspect some of the above ground storage tanks listed in a letter addressed to Mr. Neal Welland of the Santa Fe Springs Fire Department and copied to Ms. Florence Gharibian of DTSC. At the conclusion of the inspection Ms. Pinon issued CENCO a summary of violations that addressed several areas of the Refinery. CENCO responded to several of DTSC's concerns in a letter dated April 18, 2000. The following is DTSC's summary of violations (itialics) and CENCO's response to the remaining issues (normal font) as described in the April 21, 2000 inspection report.

1. Issue – Health and Safety Code (HSC), Section 25201 (a).
CENCO violated HSC, section 25201 (a) in that on or about April 5, 2000, CENCO stored hazardous waste for over 90 days without a permit or grant of authorization from the Department. To Wit; CENCO stored hazardous waste from at least August 1998 to the present in the following tanks:

A. Tanks 27105, 10006, 79022, 96090 and 27093 – oil bearing waste/material and refinery residuals including, ignitable and toxic. The waste was a combination of used oil, oily water, and sludge. Total volume of waste stored in the tanks is 39,209 barrels.

B. Tanks 1002 and 2030 – spent caustics (D002) which is characteristically hazardous. The total volume stored in the tanks is 1694 barrels.

C. Tanks 96109 and 96110 – crude oil bottoms which is toxic. Total volume of waste that is stored in the tanks is 47,905 barrels

D. Tank 5516 – clarified slurry oil which is toxic. Total volume of waste stored in the tank is 1,639 barrels.

E. Tanks 20014, 3012 and 3027 – recovered oil which is toxic. Total volume of waste that is stored in the tanks is 1,597 barrels.

Compliance: *Within 30 days, CENCO shall submit to the Department for review and approval a plan that addresses the hazardous waste stored in tanks without authorization. The plan shall include proper removal/disposal of the waste in a timely manner.*

Response – The materials stored in the tanks listed above were the subject of a meeting on December 6, 1999 at the DTSC office in Glendale, CA attended by representatives of DTSC and CENCO. In a letter dated January 12, 2000, CENCO submitted for approval by DTSC a proposal for the sampling and disposition of the material in the tanks (Attachment A). A second meeting that included representatives from the City of Santa Fe Springs was held on January 19, 2000. DTSC staff attending this meeting included Ms. Pinon and Ms. Gharibian. As a result of the meeting CENCO drafted a second letter, dated February 18, 2000, that further clarified the contents of the tanks and CENCO's plans for managing the material. This letter was addressed to Neal Welland of the SFSFD and copied to Florence Gharibian of DTSC (Attachment B). DTSC has yet to respond to CENCO's proposal. CENCO believes that it is currently in compliance with the requirement to submit a plan that addresses the material stored in tanks at the refinery.

The DTSC inspectors added tank 27093 to the list of tanks that may contain hazardous material against CENCO's determination that the contents of the tank are valuble recoverable hydrocarbon product and likely to be non-hazardous. Analytical data for the heal remaining in tank 27093 can be found in Attachment C. This data supports CENCO's determination that the material in tank 27093 is non-hazardous.

If you have any questions concerning the specifics of the information presented in this letter please contact me at 562 944-6111.

Sincerely,

June M. Christman
Environmental Manager

JMC:nn

cc.
Neil Norcross – CENCO
Meg Rosegay – Pillsbury, Madison & Sutro, LLP
Charito Pinon – DTSC
Roberto Kou - DTSC
File 41005.07
Reader File
Environmental/norcross/waste/sov-400
L-DTSC004

Attachment A

Pillsbury
Madison &
Sutro LLP

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January 12, 2000

VIA FEDERAL EXPRESS

Ms. Florence Gharibian
Chief, Statewide Compliance Division
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, CA 91201

Re: CENCO Refining Company

Dear Ms. Gharibian:

Thank you for meeting with representatives of CENCO Refining Company on December 6 , 1999 to discuss the disposition of oil-bearing materials in two tanks (Tank 27105 and Tank 10006) at the Company's refinery in Santa Fe Springs, California. Although CENCO's original intent was to respond directly to the specific factual questions you asked at the meeting, subsequent conversations with you and Denise Hoffman suggested that it would be more appropriate for CENCO to submit a comprehensive discussion of its proposal for dealing with these two tanks, as well as with a number of other waste-related issues at the refinery. Accordingly, this letter lays out the specifics of CENCO's proposal with respect to Tanks 27105 and 10006, as well as the reasoning and equitable considerations that we believe warrant Department approval of the proposal, and explains how CENCO proposes to deal with other potential hazardous waste issues that have come up since our December 6 meeting.

1. Tank 27105 and Tank 10006

As discussed at the meeting, CENCO believes that the most environmentally appropriate means of handling the oil-bearing material in these two tanks is to recycle it to the Coker upon resumption of refinery operations. The material in these tanks is residual oil-bearing material from process units, product tanks and intermediate tanks and off-spec products from CENCO's refinery. To CENCO's knowledge, none of the materials placed in these tanks is a listed waste. Listed wastes that were generated during the course of the refinery operation since at least 1990

(e.g., F037/F038, K051) were segregated from other residual materials and recycled to the Coker or sent off-site for disposal. In response to the Department's concern that some of the product tank bottoms may have been K052 (i.e., tank bottoms (leaded) from the petroleum refining industry), Powerine (CENCO's predecessor in interest) did not produce any leaded gasoline after the late 1980's. Thus, to CENCO's knowledge, none of the product residues placed in Tank 27105 or Tank 10006 were K052 waste.

CENCO believes there is a significant threshold question that must be addressed, i.e., whether the oil-bearing material that is proposed to be stored at the refinery pending resumption of refining operations is in fact a hazardous waste. As discussed at the meeting on December 6, CENCO disagrees with the Department's sampling protocol for the tanks. Specifically, CENCO does not believe it is appropriate to separately characterize the different phases of the material in the tanks, since these phases exist solely due to gravity separation that has occurred inside the tanks. Based on its knowledge of the materials that were originally placed in the tanks, CENCO does not believe the materials exhibited hazardous characteristics. The samples that were collected and analyzed by the Department are not representative of the materials that were placed in the tank, but instead represent their constituent parts. If representative samples of the tank contents as a whole were analyzed, as opposed to the separate phases, the tank contents may well be shown to be nonhazardous. In any event, CENCO genuinely doubts that the solid phase (the phase which CENCO proposes to store at the refinery) exhibits the federal Toxicity Characteristic ("TC"), as indicated by the Department's sampling results.[1] The solid phase of the material is the middle layer, and is resistant to penetration by a sampling device. CENCO suspects that in the process of drawing the sampling device up through the overlying oil phase in the tank, the sample became "contaminated" with oil. Given that the oil layer also exhibits the TC due to elevated benzene, it is not surprising that a sample drawn up through this material would become contaminated.

CENCO thus intends to resample the contents of Tank 27105 and 10006 as the first step in its proposal. CENCO proposes to resample the separate phases in each tank, and to analyze composite samples which accurately reflect the tank contents as a whole. CENCO will prepare a Sampling and Analysis Plan ("SAP") for Department approval, will notify the Department of the sampling schedule, and will provide split samples to the Department for its own analysis. CENCO hopes to provide the Department with a copy of the SAP by the end of the month.

CENCO now recognizes that, to the extent the material stored in the tanks exhibits a hazardous characteristic, it would be classified as hazardous waste due to the passage of more than a year since the material was first accumulated for recycling. On the other hand, if the tank contents as a whole are not hazardous, CENCO does not believe there would be any jurisdictional basis for regulating the storage of the material pending resumption of refinery

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[1] The samples collected from the middle layer of the tanks (POC-2-128a and POC-9-128A) each contained 1.4 mg/L benzene.

operations (storage of nonhazardous waste is not regulated under the Hazardous Waste Control Law). However, CENCO recognizes there is a difference of opinion over the representativeness of the sampling that has been conducted to date. In the spirit of compromise, CENCO is willing to be guided by the sampling results for the individual phases of material since they are proposed to be managed separately under the proposal outlined below.

Assuming the materials in question are hazardous, the Department clearly has the authority, through the exercise of its enforcement discretion, to enter into a Consent Agreement pursuant to which CENCO would be allowed to continue storing the material pending start-up of the refinery. CENCO understands the Department's reluctance to allow this storage to occur indefinitely, and is willing to develop a mutually acceptable compliance schedule for inclusion in the Consent Agreement. Obviously, if CENCO is unable to comply with the negotiated schedule (i.e., if it becomes apparent that the refinery will not resume operation within the foreseeable future), CENCO recognizes the material will have to be disposed of off-site. At that point, funds would be made available, through the sale of refinery equipment and other disposition of company assets, to pay the cost of off-site disposal. However, assuming the material is a hazardous waste (which, in fact, may not be the case), CENCO simply does not have the financial means at the present time to dispose of the material off-site (the estimated costs of disposal are presented below). A copy of CENCO's most recent audited financial statement is included in Attachment 1. This statement clearly documents CENCO's inability to pay for significant disposal costs.

Aside from financial considerations, we do not believe it makes sense from an environmental perspective to require CENCO to dispose of the contents of Tank 27105 and Tank 10006. Given the fact that CENCO has a coker and will be able to process oil-bearing material once the refinery resumes operation, the highest and best use of this material is to recover reusable hydrocarbon through the coking process. In the meantime, CENCO is willing to consolidate the material into one tank and minimize the volume of material that will need to be stored. As described in Attachment 2, CENCO proposes to pump the material in Tank 1000 to Tank 27105, and then to reduce the amount of material that will be stored in Tank 27105 by the following means:

(i) waterdrawing the tank in the usual fashion and discharging the water to the refinery's wastewater treatment system. Following treatment, the water would be discharged to the POTW in accordance with the refinery's industrial discharge permit and the California Limited Domestic Sewage Exclusion (22 CCR §§ 66261.4(b)(2); 66265.1(d)(14)).

(ii) removing any free oil from the tank and combining it with the recovered oil currently being stored in Tanks 3012 and 3072.[2] This oil would be transferred to

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[2] The oil in these tanks was previously recovered from Tank 27105 and Tank 10006, and from the refinery's wastewater treatment system. At present, there are approximately 1240

(... continued)

the Paramount Refinery for processing back into crude. CENCO understands that the transfer of recovered oil to Paramount must be conducted pursuant to a Consent Agreement,[3] given that inter-company transfer of recovered oil is not contemplated by the state oil recovery exemption in Health and Safety Code section 25144.[4] Based on recent conversations with Paramount representatives, CENCO believes that Paramount will accept the oil so long as the Department approves the transfer.

As discussed at the December 6 meeting and in previous correspondence with the Department, CENCO has inspected both tanks and determined that both have good shell strength and structural integrity. However, Tank 27105 is the larger of the two tanks, is located in close proximity to the Coker, and with minor piping modifications, the contents of Tank 27105 can be pumped directly to the Coker sludge injection tank. Additionally, Tank 27105 appears overall to be in better condition than Tank 10006, and it is preferable from an operational standpoint to consolidate the material in one location. The capacities of the tanks and estimated volumes of the different phases in the tanks are provided in Table 1. Tank 27105 is large enough to accommodate the entire contents of both tanks. However, once the oil and water have been removed, CENCO anticipates that only the remaining solids (approximately 11,888 bbls) will be stored in the tank.

TABLE 1

Tank No.	Capacity	Water	Oil	Solids	Subtotal
Tank 10006	10,000 bbls	35% 122,010 gals	15% 52,290 gals	50% 174,300 gals (771 tons)	348,600 gals 8,300 bbls
Tank 27105	27,000 bbls	15% 81,800 gals	25% 135,000 gals	60% 325,000 gals (1438 tons)	541,800 gals 12,900 bbls
			Total Solids	**2209 tons (11888 bbls)**	

At the December 6 meeting, you also asked for specific information concerning the cost of off-site disposal of the material in the tanks. This information is presented in Table 2 below. The costs vary significantly depending on whether the material is RCRA or non-RCRA

(... continued)
barrels of oil in these tanks. Each tank has a capacity of 3,000 barrels. An additional 250 barrels of recoverable oil (not shown in total) are believed to be in Tank 27105.

3 This assumes the recovered oil exhibits a hazardous characteristic.

4 CENCO previously understood that the inter-company transfer of recovered oil was permissible under the oil recovery exemption.

hazardous waste, and whether the volume of waste is minimized prior to off-site disposal through dewatering and oil recovery. If CENCO were required to dispose of the entire contents of the two tanks as RCRA wastes, the total cost for the project could be as high as $4,112,800 if incineration were required. Even if the material were recycled off-site (for example, by Demenno/Kerdoon or Missouri Fuels), the cost would still approach $1.5 million. If the material were classified as non-RCRA hazardous waste, the disposal cost would be considerably less, although still almost $525,000. In sharp contrast, the cost of CENCO's proposal is only $60,895, as detailed in Attachment 2.

TABLE 2

Disposal Facility	**Combined Material**	**Oil Only**	**Solids Only**
Waste Management	$4,067,800 (based on incineration)[5]		$226,422 (D018 only) ($102.50/ton)
Safety Kleen	Cannot be landfilled		
US Ecology	Cannot be landfilled		$236,363 (Non-RCRA only) ($107/ton)
Missouri Fuels Recycling	$1,460,256 ($1.64/gal)		$977,482 ($442.50/ton)
Demenno/Kerdoon	$1,396,096 ($0.48/gal for water) ($0.15/gal for oil) ($575/ton for solids)	$108,628 ($0.58/gal)[6]	
Additional Costs			
Tank Cleaning	$45,000	$45,000	
Phase Separation		$131,680	

5 Waste Management has indicated that the material in the tanks cannot be landfilled, and would be redirected to their incineration facilities in Port Arthur, Texas. The cost of transporting the material to Texas is $4,000/20 tons, and the cost of incineration is $0.45/lb, for a total cost of $1,100/ton.

6 The higher price per gallon ($0.58 vs. $0.15) assumes that the oil must undergo water/solids separation prior to recycling.

2. Crude Oil Tanks

As we have discussed, there are also three tanks at the refinery which contain tank bottom materials that are potentially subject to the new federal hazardous waste listings for petroleum refining wastes. While I am confident that there is no current compliance problem relating to the storage of these materials, CENCO acknowledges that it will become a problem in the future if startup of the refinery is delayed beyond next summer. Some background discussion follows.

On August 6, 1998, the U.S. Environmental Protection Agency ("EPA") adopted two new federal hazardous waste listings applicable to "crude oil storage tank bottom sediment" (K169) and "clarified slurry oil storage tank sediment" (K170). The new listings became effective February 8, 1999 (63 Fed. Reg. 42110). Under both state and federal hazardous waste regulations, materials—such as tank bottom sediments—that are generated in manufacturing process units, raw material storage tanks and other similar non-waste equipment are not subject to regulation (i.e., are not considered to be generated) until they have been removed from the unit except in the case of equipment which has been out of service for more than 90 days (22 Cal. Code Regs. § 66261.4(c)). In addition, generators of hazardous waste are authorized to accumulate hazardous wastes on-site without a permit for up to 90 days (22 Cal. Code Regs. § 66262.34). EPA and DTSC have interpreted these regulations in concert to allow generators a total of 180 days (90+90) to accumulate hazardous wastes in out-of-service equipment before such wastes become subject to permitting requirements.

There are three tanks at the CENCO refinery (two crude oil tanks and one clarified oil tank) which currently contain tank bottom sediments that would fall within the scope of the new hazardous waste listings BUT FOR the fact that the sediments are currently classified as "oil-bearing secondary materials" from petroleum refining operations that are destined to be recycled back to the process. This brings these materials within the scope of the overriding federal exclusion applicable to such materials (40 CFR § 261.4(a)(12)(i)). Under this exclusion, the tank bottom sediments from the crude oil tanks and the clarified oil tank are NOT classified as "solid waste" under RCRA, so long as they are not speculatively accumulated or managed in land-based units. Under applicable regulations, recyclable materials are not considered to be "speculatively accumulated" so long as 75% of the materials accumulated at the beginning of the year (January 1) have been recycled by the end of the year. It should also be noted that any crude oil that is in the tanks, and that is present in a distinct layer on top of the tank bottom sediments, does not fall within the scope of the new federal listings.

In this case, the pertinent hazardous waste listings did not become effective until February 8, 1999. However, because CENCO intends to recycle this material in-house, the tank bottoms fall within the federal solid waste exclusion discussed above and will retain that status for one year after the effective date of the listing, i.e., until February 8, 2000. Thereafter, the tank bottom sediments may be stored on-site without a permit for a total of 180 days. Thus, CENCO has until August 2000 to begin recycling these oil-bearing materials at the refinery and may store these materials at the refinery until such time without a permit. Because the requirements of the federal hazardous waste law are not implicated, a comparable exemption for

storage of oil-bearing material is available under the California Hazardous Waste Control Law (HSC § 25144). Thus, in my opinion, the storage of tank bottom sediments in the tanks is consistent with applicable regulations and does not present a compliance issue at the present time.

In anticipation of the upcoming regulatory deadlines and eventual refinery start-up, CENCO actually undertook initial steps to consolidate these oil-bearing materials within the refinery last summer in anticipation of returning them to the process upon refinery start-up or for off-site disposal if necessary. Another purpose of this project was to clean and inspect the crude tanks to ready them for regular operations. Material from one of the crude tanks (Tank 96986) was pumped to the second crude tank (Tank 96109), and from there, the combined material was to be pumped to the remaining crude oil tank (Tank 96110) where it would have been stored pending recycling. In addition, tank bottom sediment from one of the clarified oil tanks was removed and disposed of off-site. However, due to odor problems, the tank cleaning project was halted after only two of the tanks had been cleaned out, and the project was not resumed.

CENCO proposes to manage the oil-bearing tank bottom sediments in exactly the same fashion as the material from Tank 27105 and Tank 10006. However, since it is may not be feasible to commence actual recycling activities prior to August 2000, CENCO proposes to include the storage of these materials within the scope of the Consent Agreement with the Department. CENCO proposes to work closely with the Department and the City to establish a protocol for performing the necessary tank cleaning and material consolidation projects. In this manner, the work can be timed and conducted so as to minimize the possibility of impacts on the community.

3. Spent Caustic Tanks

There are three small tanks at the refinery (the FCC sales bullet, Tank 1002 and Tank 2030) which contain spent caustic that CENCO had hoped to reuse in the wastewater treatment system, as a treatment chemical, prior to discharging the wastewater to the POTW. The tanks contain a total of 1,750 barrels of material. However, given the delay in refinery start-up, CENCO has determined that it will either recycle or dispose of this material off-site, assuming it can identify a facility that will accept the material at a cost which is reasonable to CENCO. Funds can be made available to complete this work. CENCO will endeavor to empty the tanks and remove this material from the refinery by March 31, 2000.

* * *

We hope that the foregoing discussion is helpful to your understanding of CENCO's position, and we look forward to discussing these issues with you in more detail at our meeting on January 19, 2000. We do not believe any of these issues presents a significant risk to public health and safety or the environment, and we remain hopeful that we will be able to enter into a Consent Agreement that finally resolves these issues to the mutual satisfaction of both CENCO and the Department.

We appreciate your continued cooperation and assistance.

Very truly yours,

Margaret Rosegay

Attachments

cc: Mr. Neal Welland, Fire Chief, Santa Fe Springs
Colin Lennard, Esq.
Denise Hoffman, Legal Office, DTSC
Mr. Mukul Agarwal
Mr. Ahmed Hegab
Mr. Dave Klunk, Director, Environmental Protection Div.
Mr. Geoffrey Soares, CENCO
Ms. June Christman, CENCO

CENCO Refining Co.

Memo

To: June Christman

From: Ron Robertson

Date: January 12, 2000

Re: Tanks 10006 & 27105 Oil-Bearing Material Consolidation Plan

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Timeframe for Consolidation of Oil-Bearing Material

The consolidation and further waste minimization of oil-bearing material in Tanks 10006 and 27105 is projected to take 2 - 3 months as indicated the timeline in Attachment 1. The 2 - 3 month timeframe includes pre-commissioning and maintenance activities to effect the transfer and consolidation of oil-bearing material. It also includes post consolidation waste minimization activities.

Current Volumes of Recovered Oil, Oily Water and Oil-bearing material

The current total volume of oil-bearing material in Tanks 10006 and 27105 is 21,300 barrels (plus/minus 500 barrels). The oily water portion of the total oil-bearing material volume is approximately 3,500 barrels. Tank 10006 is a 10,000 barrel capacity tank and Tank 27105 is a 27,000 barrel capacity tank. Recovered oil from Tank 27105 (previously recovered in August, 1998) is currently stored in the Recovered Oil Tanks, Tanks 3072 and 3012, located in the Wastewater Treating Unit. Oily water, oil-bearing material and recovered oil volumes are as follows:

Tank	Tank Dimensions (DxH)	Current Tank Gauge	Oil-Bearing Material (Barrels)	Oily Water (Barrels)	Recovered Oil (Barrels)
10006	42'5"x40'2"	33 ft	4,800	3,500	
27105	70'x39'7"	19 ft	13,000		250 *(1)*
3012					744
3072					496
			17,800	3,500	1,240

Note: *(1)* Oil still in Tank 27105 that will be recovered.

Some amount of the 3,500 barrels of oily water will also be able to be recovered as oil. A rough estimate of the additional oil that can be recovered is 500 barrels. Upon receiving approval from the Department of Toxic Substances Control (DTSC) the recovered oil can be recycled at Paramount's Refinery.

Expected Volume of Oil-Bearing Material after Consolidation

The volume of oil bearing material upon completion of consolidation is expected to be 17,800 barrels.

Step by Step Consolidation Plan

Transfer, Decanting & Treatment of Aqueous Phase in Tank 10006

Step 1 of the oil-bearing material consolidation plan consists of transferring and decanting oily water & oil) in Tank 10006. A block flow diagram of the system is shown in Attachment-2.

1. Transfer aqueous phase of Tank 10006 to Tanks 3012 and 3072.
2. Allow content of Tanks 3012 and 3072 to settle to decant oil and water.

Homogenize Oil-Bearing Material in Tank 10006

Step 2 of the oil-bearing material consolidation plan consists of homogenizing the oil-bearing material in Tank 10006 by injecting water into the bottom of the tank and establishing a closed loop circulation for thorough mixing of the tank contents.

Oil-Bearing Material Consolidation into Tank 27105

Step 3 of the oil-bearing material consolidation plan consists of transferring the homogenized oil-bearing material to Tank 27105, decanting and transfer of oily water and oil to the recovered oil tanks for additional water decanting.

Cost Estimate

The projected cost to effect the consolidation and decanting of the oil-bearing material is estimated at $60,895. The estimate includes manpower cost. See Attachment-3 for cost breakdown.

Attachment-1 Timeline / Barchart
Attachment-2 Block Flow diagram
Attachment-3 Cost Estimate

CC:

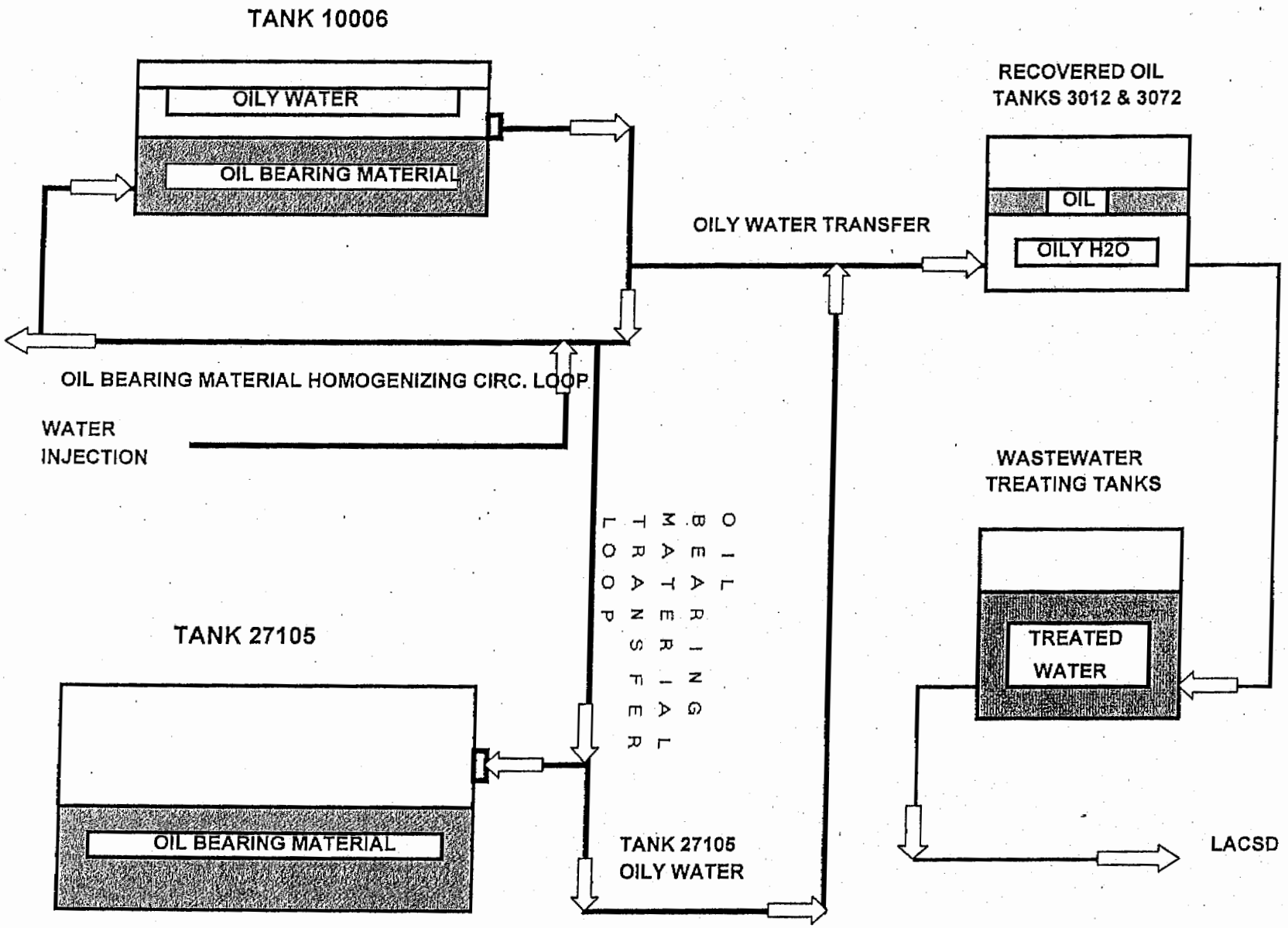
C:\My Documents\DTSCinfo.doc

P:data/envrionmental/wp/jmc/oil bearing consolidation plan.doc

TANKS 10006 / 27105 OIL-BEARING MATERIAL CONSOLIDATION TIMELINE / BARCHART

	MONTHS	1				2				3					
	WEEKS	1	2	3	4	1	2	3	4	1	2	3	4	1	2
	PRE-COMMISSIONING / MAINTENANCE														
1	Hot Tap Tank 10006 @ 20 Ft Elevation														
2	Fabricate / Install TK10006 Transfer / Circulation Piping														
3	Install Transfer / Circulation Pumps														
4	Purge Residual Oil Out of Transfer Line to Tank 27105														
5	Hot Tap Tank 27105 @ 25 Ft Elevation														
6	Fabricate / Install Piping From #1 TC Line to TK 27105														
	TANK 10006 HOMOGENIZATION														
1	Transfer Oily Water From Tank 10006 to Tank 3072														
2	Decant Oily Water in Tank 3072														
3	Inject Water Into Tank 10006 to Homogenize Oil-Bearing Material														
4	Establish Closed Loop Circulation														
	OIL-BEARING MATERIAL CONSOLIDATION INTO TANK 27105														
1	Pump Tank 10006 Homogenized Oil-Bearing Material to Tank 27105														
2	Allow Contents of Tank 27105 to Settle for 1 Week														
3	Water Draw Tank 27105 Upon Completion of Hot Tap														
4	Decant Oily Water from Tank 27105 in Tanks 3012 / 3072														
5	Transfer / Treat Decanted H2O From Tank 3072														
	Transfer Recovered Oil to Paramount Refinery														

TANKS 10006 & 27105 OIL BEARING MATERIAL CONSOLIDATION BLOCK FLOW DIAGRAM



OIL BEARING MATERIAL CONSOLIDATION COST SUMMARY

	COST
CHEMICALS	
Sodium Hypochlorite to Treat Oily Water - 2000 Gallons @ $1.00 / Gal.	**$2,000**
PIPING & MATERIAL	
150 Feet of 3" Piping - Installed Cost of $70.00 Per Foot	**$10,500**
Hot Tap Tank 10006 (Outside Contractor Service) ***2 Hot Taps***	***$7,500***
Hot Tap Tank 27105 (Outside Contractor Service) ***2 Hot Taps***	***$7,500***
ROTATING EQUIPMENT	
Refurbish Sludge Transfer / Circ. Pumps	**$1,000**
Air Compressor Rental - $100.00 Per Week For 6 Weeks	**$600**
Air Compressor Fuel	**$200**
SUB TOTAL - EQUIP., PIPING, CHEMICAL & SERVICES	**$29,300**
CONTINGENCIES (15%)	**$4,395**
MANPOWER	
Two (2) Operators - 5 Days Per Week for 10 Weeks @ $22.00 Per Hr.	**$17,600**
One (1) Pump Mechanic For 2 Weeks @ $30.00 Per Hr.	**$4,800**
One (1) Pipe Fitter For 2 Weeks @ $30.00 Per Hr.	**$4,800**
SUB TOTAL - MANPOWER	**$27,200**
TOTAL	**$60,895**

Attachment B

CENCO Refining Company

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John D. R. Wright
Executive Vice President
Corporate Development & Planning
Direct Phone (5620 906-6941
Direct Facs (562) 903-8931

February 18, 2000

Chief Neal Welland
Fire Department
City of Santa Fe Springs
Headquarters Fire Station
11300 Greenstone Ave.
Santa Fe Springs, CA 90670-4619

The City of Santa Springs has requested characterization of all tanks on the CENCO refinery site in a letter to Geoff Soares of CENCO on February 3, 2000, as follows:

1. The tank characterization effort for all tanks on site. This effort was discussed during the January 25, 2000 meeting at the Clark Estate. The characterization must include a complete description of the tank contents, the ultimate disposition of the materials, the method utilized to determine the materials characteristics which should confirm generator knowledge, and the quantity of material in each of the tanks. Please provide a copy of this legend to the Fire Department and the DTSC by February 18, 2000.

TANK CONTENTS

Table 1 provides the tank contents and volumes information. Tanks numbered 17-26 in the listing are those that have been under discussion with the DTSC as containing or potentially containing hazardous waste materials.

VOLUMES

Because of the very small quantities in the tanks, measurement of the volumes is difficult. To give this some perspective, approximately 12,000 barrels of oil material is stored (in 24 of the 97 tanks in the refinery), as compared to a normal operating inventory of about 1,200,000 barrels. Our present inventory is only about 1% of normal. To deal with this, the refinery operations management supervised closely the gauging of the tanks. The gauging was done by hand using a gauge tape (rather than rely on the Varek dial gauges, which at the low tank volumes will be less accurate). Volumes of solid material are particularly difficult to estimate when any liquid at all is present; what is presented in Table 1 is accurate as best we can measure and estimate it.

ULTIMATE DISPOSITION OF TANK CONTENTS

Tanks Containing Hazardous or Potentially Hazardous Materials

As noted above, tanks numbered 17-26 are those that have been under discussion with the DTSC as containing or potentially containing hazardous waste materials. The disposition of this material may be subject to this agency's authority and it is our belief that it will be the subject of a consent agreement with DTSC. In general terms, we have requested to:

Tanks 1002 and 2030

- Identify a cost effective disposal option for the spent caustic contents of these tanks. Unfortunately, Merichem, one of our initial candidate companies for disposal of the caustic, has informed us that they consider these materials as "high pH water" and not economically suitable for their process. Consequently, we intend to discuss onsite treatment options with DTSC. If DTSC approves onsite treatment, we will consult with SFSFD to develop a procedure for doing this. If we can, as we believe to be the case, develop a procedure that addresses all safety and odor concerns and meets applicable discharge limits and any other regulatory obligations, CENCO can save over one hundred thousand dollars in offsite waste disposal costs;

Tanks 10006, 27105 and 20014

- Sample the solids layer in tanks 27105 and 10006 and determine if it is indeed hazardous. If it is non-hazardous, the tanks will be cleaned as a part of the refinery maintenance turnaround, and the material will be either recycled to the delayed coker or disposed of offsite. If it is hazardous, the material will be consolidated into Tank 27105 and processed in the delayed coker unit during refinery operations. Once the coker is in operation it will take a period of approximately 6-10 months to work off the inventory of solids (as limited by the capacity of the sludge injection equipment at the delayed coker) if this option is followed;
- After consolidation of Tanks 27105 and 10006, draw the water layer off tank 27105 into the wastewater system and recover the oil phase into Tank 20014;
- Process the water in the refinery wastewater system and discharge it as we normally do during routine operations, in accordance with CENCO's discharge permits;
- Send the recovered oil to Paramount Petroleum Corporation;

Tanks 79022 and 96090

- These tanks were used to store sour water, with a layer of gas oil above the water as a blanket for odor control. As previously discussed with you, some water has been removed from the tanks and sent to the wastewater system. The gas oil remains in the tanks, along with residual water and solids. We will attempt to remove any residual water that remains and will consolidate the gas oil with the other gas oil streams to be sold as described below.

Tanks 96109 and 96110

- Tanks 96109 and 96110 contain saleable crude oil that we wish to consolidate into Tank 96109 and sell, as a part of the DTSC agreement noted above. The crude oil could contain benzene in excess of 0.5 ppm, but is not a waste material. The water layers would be drawn off and processed in the wastewater system as with the other tanks described above. The tank bottoms will be recycled to the coker upon resumption of crude oil refining. These materials would be classified as listed wastes if they are not recycled.

Tank 5516

- The clarified slurry oil tank bottoms will remain in the tank and be recycled to the delayed coker, also as described above. These materials would be classified as listed wastes if they are not recycled.

Tanks Containing Wastewater

As I have discussed with David Klunk in earlier meetings, CENCO is in the process of consolidating wastewater located in various tanks in the refinery into the wastewater system. The water will be treated and discharged in accordance with CENCO's permits. We are obligated to notify the LACSD and the SFSFD when we intend to discharge wastewater during this period when the refinery is not refining crude oil. Our general objective is to get as much water as practicable treated and discharged out of the refinery. However, we have filled certain floating roof tanks with water to a level that floats the roof so as to avoid damage to the floor by the support legs on the floating roofs, and it is our intention to maintain this practice.

Tanks Containing Oil

For easier reference, Table 2 is a compilation of the contents of only those tanks containing oil. Since many of the tanks will have to be inspected as a part of the maintenance turnaround, the oil volumes in the various tanks have to be removed sooner or later. CENCO intends to consolidate oil volumes as appropriate to their characteristics and sell the intermediate, blendstock and product streams, as opposed to waiting for the maintenance turnaround to begin.

Gasoline Blendstock

Tanks 60108, 60059, 96114 and 96115 contain saleable gasoline blendstocks. These are believeed to be hazardous because of benzene content but they are not waste materials. CENCO plans to consolidate the gasoline blendstocks into Tank 96115. CENCO will sample the consolidated blendstock for gasoline qualities (benzene, sulfur, T50, T90, RVP, octane aromatics olefins) and gum, and sell the material as a blendstock to one of the local refiners, based on these qualities.

Gas Oil

Tanks 10023, 54039, 37025, 40106, 20091, 27093 and 2047 contain gas oil, a refinery intermediate oil material boiling approximately between 600 – 1000 F. This material is not a waste. We believe it to be non-hazardous, because of its boiling range (generator knowledge). Benzene boils at 176 degrees F, and cannot be present in a material boiling within the range described above. Similarly, the flash point is believed to be far above 140 degrees for the same reasoning.

CENCO plans to consolidate the gas oil layers from each of the above listed tanks into Tank 10023. This would render most of the tanks liquid empty (i.e. only tank sediment, scale, etc. would remain). In some of the tanks, the hydrocarbon layer is below the suction line from the tank to the pump that will be used to transfer the gas oil. CENCO will need to add several feet of water to these tanks in order to enable the transfer. Our plan is to use wastewater from Tank 10045 for this purpose.

As noted, based on our generator knowledge we believe all of the gas oil will test far above 140 degrees F for flash point. To confirm this, once all the gas oil has been consolidated into Tank 10023, a sample of the gas oil will be taken and analyzed for flash point.

Diesel

Tanks 10050, 20053 and 5015 contain diesel materials that are saleable. We will test the tanks before doing anything else, but it is our belief that the flash points will measure above 140 degrees F. We plan to obtain samples of the diesel material in each of Tanks 10050, 20053 and 5015 and analyze them for flash point. If the flash is above 140°F (i. e. non-hazardous) the diesel will be consolidated with Tank 10023 (gas oil), because the small volume of material does not make it economic to handle it separately. If the flash is below 140°F, the diesel range hydrocarbons will be handled as a separate product, the same as crude oil and gasoline blendstock.

Solid Materials

We do not believe that solid material that will remain in the various tanks after the oil and water have been removed is hazardous. Attachment A is a compilation of analytical data obtained from tank sediment samples from 7 tanks which were cleaned for routine maintenance during 1993 and 1994. As you can see, even the tank sediment from Tank 43009, a gasoline tank, tested non-hazardous for benzene. Historically, gasoline has had the highest benzene content of any crude, intermediate or finished product. If gasoline tank sediments do not contain hazardous levels of benzene, sediments from gas oils etc. are extremely unlikely to contain hazardous levels of benzene.

Some solids will have to be removed to inspect and, if necessary, repair the tanks. In such a case, our plan is to test solid materials as the initial step in the tank inspection process during the maintenance turnaround, and manage them accordingly.

Clearly there are some contingencies in the plans as proposed here. In some cases, what we do depends on what we find, and sometimes plans have to be modified accordingly. Please be assured that it is my specific responsibility at CENCO to work with the city and SFSFD to make sure that not only are all our regulatory obligations satisfied in this process, but that we work with you to make sure all concerns are addressed and resolved satisfactorily. The requested date to provide this document to SFSFD is today, February 18, 2000. Dave Klunk has not been available to review this with him before submittal, but our proposal is not engraved in stone and I will welcome an opportunity to discuss it with him and figure out ways to deal with any concerns that come up.

For CENCO Refining Company,

John Wright

cc: Ms. Florence Gharibian
Department of Toxic Substances Control

UPDATED 2/15/00

CENCO REFINING COMPANY
RANKED BY TANK STATUS

TABLE 1
2/18/00 15:58

	TANK #	TYPE	FORMER SERVICE	CURRENT STATUS	NOTES	GAUGE		BBLS	VOLUME	BARRELS COMPOSITION				%
						FT	IN	PER FT.	BBLS	OIL	WATER	SOLIDS	CAUSTIC	
1	2047	CONE ROOF	OILY WATER	CONTAINS A HEEL	7	5	4	100	533	150	335	50		CONTAINS SALEABLE GAS OIL / GASOLINE BLENDSTOCK
2	5015	CONE ROOF	DIESEL	CONTAINS A HEEL	7	3	4	129	430	20	387	22		
3	10023	CONE ROOF	COKER - OFF SPEC GAS OIL	CONTAINS A HEEL	7	15	0.05	348	5,221	2,100	2,871	261		
4	10050	CONE ROOF	DIESEL	CONTAINS A HEEL	7	0	5.48	252	115	80	10	25		
5	20091	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	7		11	498	457	83	83	291		
6	27093	CONE ROOF	COKER PARAFFINIC OIL	CONTAINS A HEEL	7	1	3	700	875	350	0	0	525	
7	40106	CONE ROOF	TOPPED CRUDE	CONTAINS A HEEL	7	0	9	836	627	139	279	139		
8	54039	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	7	1	4	1860	2,480	465	1,705	310		
9	20053	CONE ROOF	LIGHT CYCLE OIL	CONTAINS A HEEL	3 & 7		7.5	512	320	85	192	43		
10	20094	CONE ROOF	LIGHT COKER GAS OIL	CONTAINS A HEEL	3 & 7	0	10	500	417	42	208	167		
11	37025	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	3 & 7		13	1238	1,341	103	1,032	206		
12	60107	CONE ROOF	HVGO / HCGO	CONTAINS A HEEL	3 & 7	0	11.44	1259	1,200	100	575	525		
13	96115	EXT FLOAT ROOF	GASOLINE	LIQUID BALANCED	5 & 7	2	10.28	1992	5,690	960	4,731	0		
14	60059	EXT FLOAT ROOF	HEAVY NAPHTHA	LIQUID BALANCED	3, 5 & 7	5	0.97	1277	6,488	50	6,437	0		
15	60108	EXT FLOAT ROOF	CAT GASOLINE	LIQUID BALANCED	3, 5 & 7	6	1	1275	7,756	10	7,745	0		
16	96114	EXT FLOAT ROOF	GASOLINE	LIQUID BALANCED	3, 5 & 7	2	9.97	1990	5,633	160	5,473	0		28%
17	1002	CONE ROOF	SPENT CAUSTIC	SPENT CAUSTIC	6				600				600	POTENTIALLY HAZARDOUS MATERIAL DTSC
18	2030	CONE ROOF	SPENT CAUSTIC	SPENT CAUSTIC	6	8	2	134	1,094				1,094	
19	10006	CONE ROOF	OIL BEARING MATERIAL	OIL BEARING MATERIAL	6	33	4	250	8,333	375	3,145	4,813		
20	20014	CONE ROOF	LIGHT VAC. GAS OIL	IN SERVICE-RECOVERED OIL	6		11.5	480	460	80	340	40		
21	27105	CONE ROOF	OIL BEARING MATERIAL	OIL BEARING MATERIAL	6	19	3	682	13,129	284	1,821	11,021		
22	79022	CONE ROOF	SOUR WATER	OIL BEARING MATERIAL	6	5	5	1913	10,362	1,450	6,681	2,232		
23	96090	CONE ROOF	SOUR WATER	OIL BEARING MATERIAL	6	3	3	2003	6,510	1,669	3,005	1,836		
24	96109	EXT FLOAT ROOF	CRUDE	CRUDE/CRUDE OIL BOTTOMS	6 & 7	21	6.25	2040	32,575	2,125	28,390	2,060		
25	96110	EXT FLOAT ROOF	CRUDE	CRUDE/CRUDE OIL BOTTOMS	4, 6 & 7	1	8	2043	15,330	100	14,730	500		
26	5516	FLAT FIXED	CLARIFIED SLURRY OIL	CLARIFIED SLURRY OIL	3 & 6	7	3	226	1,639	0	250	1,390		13%
27	3012	CONE ROOF	WASTE WATER / RECOVERED OIL	CONTAINS A HEEL	3	5		124	620	0	0	620		CONTAINS A HEEL / WATER BALANCED
28	3072	CONE ROOF	WASTE WATER / RECOVERED OIL	CONTAINS A HEEL	3	4	2	124	517	0	248	269		
29	5075	CONE ROOF	GASOLINE	CONTAINS A HEEL	3	1		166	166	0	166	0		
30	27103	CONE ROOF	LT. STRAIGHT NAPHTHA	CONTAINS A HEEL	3		5.5	684	314	0	285	29		
31	27104	CONE ROOF	JET A	CONTAINS A HEEL	3	2	2	683	1,480	0	1,366	114		6%
32	30001	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		LIQUID EMPTY NO WATER / HYDROCARBON
33	30002	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		
34	30003	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		
35	30004	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		
36	30005	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		
37	30006	BULLET	PROPANE	LIQUID EMPTY	2				0			0.5		
38	3020	CONE ROOF	BOILER FEED WATER	LIQUID EMPTY	2	0			0	0	0	0.5		
39	4236	CONE ROOF	FIREWATER	LIQUID EMPTY	2				0	0	0	0.5		
40	5017	CONE ROOF	BOILER FEED WATER	LIQUID EMPTY	2	0			0	0	0	0.5		
41	10004	CONE ROOF	VACUUM RESID	LIQUID EMPTY	2	0	1	252	21	0	0	0.5	21	
42	10024	CONE ROOF	UNTREATED DIESEL	LIQUID EMPTY	2	0	2	404	67	0	0	67		
43	10073	CONE ROOF	STRIPPED SOUR WATER	LIQUID EMPTY	2	0		422	0	0	0	0.5		
										10,981	92,488	27,032	1,694	132,196
										8.3% OIL	70.0% WATER	20.4% SOLIDS	1.3% CAUSTIC	

UPDATED 2/15/00

CENCO REFINING COMPANY
RANKED BY TANK STATUS

	TANK #	TYPE	FORMER SERVICE	CURRENT STATUS	NOTES	GAUGE FT	GAUGE IN	BBLS PER FT.	VOLUME BBLS	BARRELS COMPOSITION OIL	WATER	SOLIDS	RESID	%
44	10074	CONE ROOF	STRIPPED SOUR WATER	LIQUID EMPTY	2	0	0	422	0	0	0	0		
45	20092	CONE ROOF	HC JET	LIQUID EMPTY	2	0	1.8	500	75	0	0	75		
46	27089	CONE ROOF	MTBE	LIQUID EMPTY	2	0		682	0	0	0	0		LIQUID
47	34008	CONE ROOF	GASOLINE	LIQUID EMPTY	2		0.5	845	36	0	0	36		EMPTY
48	40063	CONE ROOF	CARB DIESEL	LIQUID EMPTY	2	0	1.2	1007	100	0	0	101		
49	40064	CONE ROOF	HC JET	LIQUID EMPTY	2	0	0.29	1030	25	0	0	25		NO WATER /
50	40065	CONE ROOF	EPA DIESEL	LIQUID EMPTY	2	0	7	838	489	0	0	489		HYDROCARBON
51	43009	CONE ROOF	GASOLINE	LIQUID EMPTY	2		0.5	896	37	0	0	37		
52	74111	CONE ROOF	JET FUEL	LIQUID EMPTY	2	0	0.5	1544	64	0	0	64		
53	79084	BULLET	OLEFINS / ISOBUTANE	LIQUID EMPTY	2	0			0	0	0	0		
54	80071	CONE ROOF	GASOLINE	LIQUID EMPTY	2		1.2	2003	200	0	0	200		
55	96037	INT. FLOAT ROOF	CARB DIESEL	LIQUID EMPTY	2		1.2	2007	200	0	0	200		
56	96112	EXT FLOAT ROOF	DIESEL	LIQUID EMPTY	2		0.75	1995	125	0	0	125		
57	96113	EXT FLOAT ROOF	JET FUEL	LIQUID EMPTY	2		0.75	1995	125	0	0	125		33%
58	2029	CONE ROOF	DECANT	EMPTY & CLEAN	1	0	0	134	0					
59	5081	CONE ROOF	PLATFORMATE	EMPTY & CLEAN	1	0		129	0	0	0	0		
60	5082	CONE ROOF	PLATFORMATE	EMPTY & CLEAN	1	0		129	0	0	0	0		EMPTY &
61	5083	CONE ROOF	PLATFORMATE	EMPTY & CLEAN	1	0		129	0	0	0	0		CLEAN
62	5097	CONE ROOF	OFF SPEC GASOLINE	EMPTY & CLEAN	1	0		129	0	0	0	0		
63	5098	CONE ROOF	ALKYLATE	EMPTY & CLEAN	1	0		125	0	0	0	0		
64	5099	CONE ROOF	ALKYLATE	EMPTY & CLEAN	1	0		125	0	0	0	0		
65	10051	CONE ROOF	UNIFINATE	EMPTY & CLEAN	1	0		253	0	0	0	0		
66	10095	CONE ROOF	GASOLINE	EMPTY & CLEAN	1	0		253	0	0	0	0		
67	10096	CONE ROOF	GASOLINE	EMPTY & CLEAN	1	0		253	0	0	0	0		
68	10102	CONE ROOF	UNIFINATE	EMPTY & CLEAN	1	0		253	0	0	0	0		
69	96086	CONE ROOF	CRUDE	EMPTY & CLEAN	1		0	2013	0	0	0	0		15%
70	6101	SPHERE	NORMAL BUTANE	EMPTY										
71	8100	SPHERE	ISOBUTANE	WATER FILLED										
	2094	CONE ROOF	OUT OF SERVICE	DISMANTLED					0	0	0	0		WATER FILLED /
	3001	CONE ROOF	OUT OF SERVICE	DISMANTLED					0	0	0	0		
	3002	CONE ROOF	OUT OF SERVICE	DISMANTLED					0	0	0	0		IN SERVICE /
	5004	CONE ROOF	GASOLINE	DISMANTLED					0	0	0	0		
	5005	CONE ROOF	GASOLINE	DISMANTLED					0	0	0	0		OTHER
	5006	CONE ROOF	GASOLINE	DISMANTLED					0	0	0	0		
	5056	CONE ROOF	WELL WATER	DISMANTLED										TANKS
72	10045	CONE ROOF	WASTE WATER	IN SERVICE		19	3	250	4,813	396	3,918	500		
73	10046	CONE ROOF	VACUUM RESID	RESID			8	250	167	0	0	0	167	
74	20057	CONE ROOF	TREATED WATER	IN SERVICE		35		423	14,805	0	14,805	0		
75	20058	CONE ROOF	TREATED WATER	IN SERVICE		35		423	14,805	0	14,805	0		
76	34055	CONE ROOF	TREATED WATER	IN SERVICE		5		849	4,245	0	4,245	0		
77	60116	EXT FLOAT ROOF	NONE	UNDER CONSTRUCTION				1250	0	0	0	0		
78	96066	CONE ROOF	VACUUM RESID	RESID		1	3	2044	2,555	0	0	0	2,555	10%
										396	37,773	1,977	3,268	43,413
										0.9% OIL	87.0% WATER	4.6% SOLIDS	7.5% RESID	

UPDATED 2/15/00

CENCO REFINING COMPANY
RANKED BY TANK STATUS

2/18/00 15:58

	TANK #	TYPE	FORMER SERVICE	CURRENT STATUS		GAUGE FT	GAUGE IN	BBLS PER FT.	VOLUME BBLS	BARRELS COMPOSITION OIL	WATER	SOLIDS	OTHERS	
	PROCESS UNIT TANKS													
79	SW-TK-1	CONE ROOF	SOUR WATER STRIPPER FEED	LIQUID EMPTY		0		31.5	0	0	0	0		
80	AV-TK-6	FLAT TOP	LIME WATER	LIQUID EMPTY		0			0	0	0	0		
81	WT-TK-1	FLAT TOP	BOILER FEED WATER	LIQUID EMPTY		0		11	0	0	0	0		
82	WT-TK-4	FLAT TOP	BOILER FEED WATER	LIQUID EMPTY		0		87	0	0	0	0		
83	TK-226	FLAT TOP	50 Be' FRESH CAUSTIC	IN SERVICE		5	4	17	91	0	0	0	91	
84	HY-TK-1	CONE ROOF	LEAN BENFIELD SOLUTION	CONTAINS PRODUCT		7		20.1	141	0	0	0	141	
85	TG-TK-4	OPEN TOP	LEAN STRETFORD SOLUTION	CONTAINS PRODUCT		19		31.5	599	0	0	0	599	
86	AM-TK-1	FLAT TOP	LEAN AMINE SOLUTION	CONTAINS PRODUCT		9		11.3	102	0	0	0	102	
87	DC-TK-1	OPEN TOP	CLEAN CUTTING WATER	LIQUID EMPTY		0		157	0	0	0	0		
88	DCH-TK-1	OPEN TOP	COKER CUTTING WATER	LIQUID EMPTY		0		14.3	0	0	0	0		
89	FW-TK-1	CONE ROOF	FIREWATER	IN SERVICE		36		495	17,820	0	17820	0		
90	MEV-204	BULLET	SPENT CAUSTIC SALES	LIQUID EMPTY		0			0	0	0	0		
						0			0	0	0	0		
										0	0	0		
										0	0	0		
										0	0	0		
										0	0	0		
										0	0	0		
										0	17820	0	932	

NOTES

1 EMPTY AND CLEAN - (I.E. NO SLUDGE, TANK SEDIMENT, SCALE, ETC.)

2 LIQUID EMPTY- NO WATER & HYDROCARBON - (ONLY TANK SEDIMENT, SCALE, ETC.)

3 CONTAINS A HEEL - WATER BALANCED & HYDROCARBON RECOVERED

4 CONTAINS A HEEL OF EMULSIFIED BOTTOMS (WATER, OIL,SLUDGE / TANK BTMS)

5 WATER INVENTORY NECESSARY TO FLOAT EXTERNAL FLOATING ROOF

6 POTENTIALLY CONTAINS HAZARDOUS MATERIAL / DTSC IS LEAD AGENCY

7 THIS TANK CONTAINS SALEABLE HYDROCARBON

GRAND TOTAL

OIL	WATER	SOLIDS	OTHERS	
11,377	130,261	29,009	5,893	176,541

GRAND TOTAL (Excluding Waste Water System)

OIL	WATER	SOLIDS	OTHERS	
10,981	92,488	29,009	5,893	138,372

GRAND TOTAL (Excluding Waste Water System) and water/hydrocarbon in external floating roof tanks)

OIL	WATER	SOLIDS	OTHERS	
9,800	68,103	29,009	5,893	112,805

TABLE 2

UPDATED 2/15/00

CENCO REFINING COMPANY
HYDROCARBON RECOVERY / SALES SUMMARY

	TANK #	TYPE	FORMER SERVICE	CURRENT STATUS	NOTES	GAUGE FT	GAUGE IN	BBLS PER FT.	VOLUME BBLS	COMPOSITION OIL	COMPOSITION WATER	COMPOSITION SOLIDS	COMPOSITION RESID	
CRUDE / DTSC														**2,520**
1	96109	EXT FLOAT ROOF	CRUDE	CRUDE/CRUDE OIL BOTTOMS	*6 & 7*	21	6.25	2040	43,903	2,350	38,803	2,720		
2	96110	EXT FLOAT ROOF	CRUDE	CRUDE OIL BOTTOMS	*4, 6 & 7*	1	8	2043	3,405	170	2,724	511		
GAS OIL / DTSC														**3,858**
4	96090	CONE ROOF	SOUR WATER	OIL BEARING MATERIAL	*6*	3	3	2003	6,510	1,669	3,005	1,836		
5	79022	CONE ROOF	SOUR WATER	OIL BEARING MATERIAL	*6*	5	5	1913	10,362	1,450	6,681	2,232		
8	10006	CONE ROOF	OIL BEARING MATERIAL	OIL BEARING MATERIAL	*6*	33	4	250	8,333	375	3,145	4,813		
10	27105	CONE ROOF	OIL BEARING MATERIAL	OIL BEARING MATERIAL	*6*	19	3	682	13,129	285	1,821	11,021		
16	20014	CONE ROOF	LIGHT VAC. GAS OIL	IN SERVICE - RECOVERED OIL	*6*		11.5	480	460	80	340	40		
										OIL			RESID	
										6,379			0	
GAS OIL														**3,966**
3	10023	CONE ROOF	COKER - OFF SPEC GAS OIL	CONTAINS A HEEL	*7*	15	0.05	348	5,221	2,100	2,871	251		
6	54039	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	*7*	1	4	1860	2,480	465	1,705	310		
7	10045	CONE ROOF	WASTE WATER	IN SERVICE		19	3	250	4,813	396	3,918	500		
9	27093	CONE ROOF	COKER PARAFINIC OIL	CONTAINS A HEEL	*7*	1	3	700	875	350	0	0	525	
11	2047	CONE ROOF	OILY WATER	CONTAINS A HEEL	*7*	5	4	100	533	150	335	50		
12	40106	CONE ROOF	TOPPED CRUDE	CONTAINS A HEEL	*7*	0	9	836	627	139	279	139		
13	37025	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	*3 & 7*		13	1238	1,341	103	1,032	206		
14	60107	CONE ROOF	HVGO / HCGO	CONTAINS A HEEL	*3 & 7*	0	11.44	1259	1,200	100	575	525		
15	20091	CONE ROOF	TREATED GAS OIL	CONTAINS A HEEL	*7*		11	498	457	83	83	291		
17	10050	CONE ROOF	DIESEL	CONTAINS A HEEL	*7*	0	5.48	252	115	80	10	25		
DIESEL														**147**
18	20053	CONE ROOF	LIGHT CYCLE OIL	CONTAINS A HEEL	*3 & 7*		7.5	512	320	85	192	43		
19	20094	CONE ROOF	LIGHT COKER GAS OIL	CONTAINS A HEEL	*3 & 7*	0	10	500	417	42	208	167		
20	5015	CONE ROOF	DIESEL	CONTAINS A HEEL	*7*	3	4	129	430	20	387	22		
NAPHTHA / GASOLINE														**1,181**
21	96115	EXT FLOAT ROOF	GASOLINE	LIQUID BALANCED	*5 & 7*	2	10.28	1992	5,690	960	4,731	0		
22	96114	EXT FLOAT ROOF	GASOLINE	LIQUID BALANCED	*3, 5 & 7*	2	9.97	1990	5,633	160	5,473	0		
23	60059	EXT FLOAT ROOF	HEAVY NAPHTHA	LIQUID BALANCED	*3, 5 & 7*	5	0.97	1277	6,488	50	6,437	0		
24	60108	EXT FLOAT ROOF	CAT GASOLINE	LIQUID BALANCED	*3, 5 & 7*	6	1	1275	7,756	10	7,745	0		
VACUUM RESID														**2,722**
25	96066	CONE ROOF	VACUUM RESID	RESID		1	3	2044	2,555	0	0	0	2,555	
26	10046	CONE ROOF	VACUUM RESID	RESID			8	250	167	0	0	0	167	
										OIL			RESID	
										5,294			3,247	

NOTES

1 EMPTY AND CLEAN - (I.E. NO SLUDGE, TANK SEDIMENT, SCALE, ETC.)
2 LIQUID EMPTY- NO WATER & HYDROCARBON - (ONLY TANK SEDIMENT, SCALE, ETC.)
3 CONTAINS A HEEL - WATER BALANCED & HYDROCARBON RECOVERED
4 CONTAINS A HEEL OF EMULSIFIED BOTTOMS (WATER, OIL,SLUDGE / TANK BTMS)
5 WATER INVENTORY NECESSARY TO FLOAT EXTERNAL FLOATING ROOF
6 POTENTIALLY CONTAINS HAZARDOUS MATERIAL / DTSC IS LEAD AGENCY
7 THIS TANK CONTAINS SALEABLE HYDROCARBON

ATTACHMENT 3

Tank no.	Service	Maintenance	Date	Classification
10023	DCU Slp.	Roof Repair	1994	Nonhazardous
10102	Unif.	Wall Repair	1994	Nonhazardous (metals)
34055	Wastewater	Cleaning	1994	Nonhazardous
40064	HC Jet	New Floor	1994	Nonhazardous
43009	RF Reg	Tank Replacement	1993	Nonhazardous
60059	RW Nap.	Primary Seal	1994	Nonhazardous (metals

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900 FAX 714/538-1209

CLIENT
Powerine Oil Co. (1699)
Attn: Judi Gardner
12354 Lakeland Rd.
Santa Fe Springs, CA 90670

LAB NO. G71817
REPORTED 05/12/94

SAMPLE Solid
RECEIVED 05/05/94

IDENTIFICATION **TK 10023 Bottoms**
Date Collected 04/30/94 1200hrs.
BASED ON SAMPLE As Submitted

CAM INORGANICS	LIMITS TTLC (mg/kg)	LIMITS STLC (mg/l)	RESULTS TTLC (mg/kg)
Antimony	500	15	ND<2
Arsenic	500	5.0	0.44
Barium	10,000	100	45.2
Beryllium	75	0.75	0.35
Cadmium	100	1.0	1.16
Chromium, Hex.	500	5	ND<1.0
Chromium, Total	2,500	560	1.87
Cobalt	8,000	80	1.44
Copper	2,500	25	7.63
Fluoride	18,000	180	6.01
Lead	1,000	5.0	4.51
Mercury	20	0.2	ND<0.07
Molybdenum	3,500	350	ND<0.3
Nickel	2,000	20	8.84
Selenium	100	1.0	ND<0.3
Silver	500	5	ND<0.3
Thallium	700	7.0	ND<0.3
Vanadium	2,400	24	209
Zinc	5,000	250	41.5

Hydrocarbons	418.1	171,000	mg/kg

Cont'd on Next Page

Client: Powerine Oil Co.
Lab No: G71817

TCLP EXTRACTION - VOLATILES

	Limits (mg/l)	Method	Results (mg/l)
Benzene	0.5	8240	ND<0.01
Carbon Tetrachloride	0.5	8240	ND<0.01
Chlorobenzene	100.0	8240	ND<0.01
Chloroform	6.0	8240	ND<0.01
1,2-Dichloroethane	0.5	8240	ND<0.01
1,1-Dichloroethylene	0.7	8240	ND<0.01
Pyridine	5.0	8240	ND<0.1
Methyl-ethyl-ketone	200.0	8240	ND<0.01
Tetrachloroethylene	0.7	8240	ND<0.01
Trichloroethylene	0.5	8240	ND<0.01
Vinyl Chloride	0.25	8240	ND<0.06

ASSOCIATED LABORATORIES, by:

Robert A. Webber
Vice President

RAW/gk

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900 FAX 714/538-1209

CLIENT

Powerine Oil Co. (1699)
Attn: Judi Gardner
12354 Lakeland Rd.
Santa Fe Springs, CA 90670

LAB NO. G75822-01

REPORTED 08/08/94

SAMPLE Soil

IDENTIFICATION TK102 #1030
Date Collected 08/01/94
As Submitted

RECEIVED 08/02/94

BASED ON SAMPLE

CAM INORGANICS	LIMITS TTLC (mg/kg)	LIMITS STLC (mg/l)	RESULTS TTLC (mg/kg)	RESULTS STLC (mg/l)
Antimony	500	15	ND <20	
Arsenic	500	5.0	15.3	
Barium	10,000	100	18.2	
Beryllium	75	0.75	5.99	
Cadmium	100	1.0	ND <2	
Chromium, Hex.	500	5	0.02	
Chromium, Total	2,500	560	54.1	
Cobalt	8,000	80	53.8	
Copper	**2,500**	**25**	**2,220**	**0.031**
Fluoride	18,000	180	11.60	
Lead	**1,000**	**5.0**	**39.4**	**0.16**
Mercury	**20**	**0.2**	**3.74**	**ND <0.004**
Molybdenum	3,500	350	209	
Nickel	2,000	20	28.3	
Selenium	100	1.0	ND <1	
Silver	500	5	ND <1	
Thallium	700	7.0	ND <1	
Vanadium	2,400	24	32.1	
Zinc	5,000	250	350	

ASSOCIATED LABORATORIES, by:

Robert A. Webber
Vice President
RAW/jaw

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900 FAX 714/538-1209

CLIENT

Powerine Oil Co. (1699)
Attn: Judi Gardner
12354 Lakeland Rd.
Santa Fe Springs, CA 90670

LAB NO. G80759-02

REPORTED 11/25/94

SAMPLE Soil

RECEIVED 11/11/94

IDENTIFICATION **SX1080 Solids FR Tank 55**

BASED ON SAMPLE Date Collected 11/11/94
As Sumbitted

CAM INORGANICS	LIMITS TTLC (mg/kg)	LIMITS STLC (mg/l)	RESULTS TTLC (mg/kg)	RESULTS STLC (mg/l)
Antimony	500	15	ND<65	
Arsenic	500	5.0	37.6	
Barium	10,000	100	63.6	
Beryllium	75	0.75	6.52	
Cadmium	100	1.0	ND< 7.5	
Chromium, Hex.	500	5	ND< 1	
Chromium, Total	2,500	560	38.5	
Cobalt	8,000	80	55.3	
Copper	**2,500**	**25**	**262**	**ND<0.02**
Fluoride	18,000	180	21.1	
Lead	1,000	5.0	30.3	
Mercury	20	0.2	0.39	
Molybdenum	3,500	350	ND< 2.5	
Nickel	2,000	20	127	
Selenium	**100**	**1.0**	**22.0**	**ND<0.04**
Silver	500	5	ND<5	
Thallium	700	7.0	20	
Vanadium	2,400	24	82.1	
Zinc	5,000	250	206	
Fish Toxicity	600/4/85/013		>750 mg/l	

Cont'd on Next page

Client: Powerine Oil Co.
Lab No: G80759-02

TCLP EXTRACTION - VOLATILES

	Limits (mg/l)	Method	Result	
Benzene	0.5	8240	ND< 0.05	mg/l
Carbon Tetrachloride	0.5	8240	ND< 0.05	mg/l
Chlorobenzene	100.0	8240	ND< 0.05	mg/l
Chloroform	6.0	8240	ND< 0.05	mg/l
1,2-Dichloroethane	0.5	8240	ND< 0.05	mg/l
1,1-Dichloroethylene	0.7	8240	ND< 0.05	mg/l
Methyl-ethyl-ketone	200.0	8240	ND< 0.05	mg/l
Tetrachloroethylene	0.7	8240	ND< 0.05	mg/l
Trichloroethylene	0.5	8240	ND< 0.05	mg/l
Vinyl Chloride	0.25	8240	ND< 0.1	mg/l

ASSOCIATED LABORATORIES, by:

Robert A. Webber
Vice President

RAW/gk

TOXICITY BIOASSAY

ASSOCIATED LABORATORIES

Lab No. G80759-02
Date Received: 11/14/94
Date Reported: 11/21/94

Bioassay Type
Static __X__ Continuous ____
Screening __X__ Definitive ____

Report To: Powerine Oil Co.
Attn: Judi Gardner
12354 Lakeland Road
Santa Fe Springs, CA 90670

Sample Description Soil - SX1080 Solids FR Tank 55 - Date Collected 11/11/94
Test Organism Pimephales Promelas Source Thomas Fish Farm Acclimatization 16 Days @ 20 deg. C
Aquaria Volume 10 liters Aquaria Depth 5 inches No. Fish/Concentration 10
Organism Characteristics Length (mm) Min 36 mm Max 40 mm Avg 38 mm Weight (gm) Min 0.64 gm Max 0.72 gm Avg 0.67 gm
Dilution Water Source Soft Tap Water Hardness - Initial 40 mg/l Final 65 mg/l Alkalinity - Initial 30 mg/l Final 45 mg/l
Aeration Air

Bioassay Conditions	Time Hrs.	Control No.	Control %	Dilution 750 mg/l No.	750 mg/l %	500 mg/l No.	500 mg/l %	250 mg/l No.	250 mg/l %	750 mg/l No.	750 mg/l %	500 mg/l No.	500 mg/l %	250 mg/l No.	250 mg/l %
	Start	10	100	10	100	10	100	10	100	10	100	10	100	10	100
	24	10	100	10	100	10	100	10	100	10	100	10	100	10	100
Organisms	48	10	100	9	90	10	100	10	100	9	90	10	100	10	100
Surviving	72	10	100	8	80	10	100	10	100	9	90	10	100	10	100
	96	10	100	8	80	10	100	10	100	8	80	10	100	10	100
	Start	6.1		6.0		6.0		6.0		6.0		6.0		6.0	
Dissolved	24	6.8		7.4		7.2		7.5		7.4		7.2		7.5	
Oxygen	48	7.4		7.2		7.5		7.7		7.2		7.5		7.7	
mg/l	72	7.0		7.6		7.3		7.4		7.6		7.3		7.4	
	96	7.2		7.0		7.4		7.8		7.0		7.4		7.8	
	Start	6.5	20°C	7.4	20°C	7.4	20°C	7.2	20°C	7.4	20°C	7.4	20°C	7.2	20°C
pH	24	6.7	20°C	7.6	20°C	7.5	20°C	7.4	20°C	7.6	20°C	7.5	20°C	7.4	20°C
	48	6.8	20°C	7.6	20°C	7.5	20°C	7.4	20°C	7.6	20°C	7.5	20°C	7.4	20°C
	72	6.8	20°C	7.5	20°C	7.5	20°C	7.4	20°C	7.5	20°C	7.5	20°C	7.4	20°C
Temp	96	6.8	20°C	7.5	20°C	7.5	20°C	7.4	20°C	7.5	20°C	7.5	20°C	7.4	20°C

Results - LC_{50} = >750 mg/l
>750 mg/l
% Survival N/A
Toxicity Units T.U. N/A
Observation/Remarks: EPA 600/4/85/013

Method of Calculations N/A
95% Confidence Limits N/A
LC_{50} Method N/A

Laboratory Supervisor

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900 FAX 714/538-1209

CLIENT

Powerine Oil Co. (1699)
Attn: Judi Gardner
12354 Lakeland Rd.
Santa Fe Springs, CA 90670

LAB NO G77161-02

REPORTED 09/06/94

SAMPLE Sludge

RECEIVED 08/31/94

IDENTIFICATION **Sample ID #1057**
Date Collected 08/31/94

BASED ON SAMPLE As Submitted

CAM INORGANICS	LIMITS TTLC (mg/kg)	LIMITS STLC (mg/l)	RESULTS TTLC (mg/kg)	RESULTS STLC (mg/l)
Antimony	500	15	ND<145	
Arsenic	500	5.0	48.1	
Barium	10,000	100	56.6	
Beryllium	75	0.75	17.5	0.046
Cadmium	100	1.0	ND< 15	
Chromium, Hex.	500	5	ND< 1	
Chromium, Total	2,500	560	116	
Cobalt	8,000	80	94.9	
Copper	2,500	25	279	ND<0.02
Fluoride	18,000	180	9.5	
Lead	1,000	5.0	53.5	0.39
Mercury	20	0.2	ND< 0.07	
Molybdenum	3,500	350	ND< 50	
Nickel	2,000	20	199	
Selenium	100	1.0	ND< 2	
Silver	500	5	14.0	ND<0.02
Thallium	700	7.0	41.0	
Vanadium	2,400	24	89.2	
Zinc	5,000	250	90.2	

Continued on Page 2

Client: Powerine Oil Co.
Lab No.: G77161-02

TCLP EXTRACTION - VOLATILES

	Limits (mg/l)	Method	Result	
Benzene	0.5	8240	ND< 0.5	mg/l
Carbon Tetrachloride	0.5	8240	ND< 0.5	mg/l
Chlorobenzene	100.0	8240	ND< 0.5	mg/l
Chloroform	6.0	8240	ND< 0.5	mg/l
1,2-Dichloroethane	0.5	8240	ND< 0.5	mg/l
1,1-Dichloroethylene	0.7	8240	ND< 0.5	mg/l
Methyl-ethyl-ketone	200.0	8240	ND< 0.5	mg/l
Tetrachloroethylene	0.7	8240	ND< 0.5	mg/l

ASSOCIATED LABORATORIES, by:

Robert A. Webber
Vice President

RAW/gk

Rev. 09/09/94 RAW/gk

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

GTEL Client Number: PWR01.PWR01
Project I.D.: Powerine Oil Co.
Work Order Number: T307054

ANALYTICAL RESULTS

Metals in Sludge
Soluble Threshold Limit Concentration

GTEL Sample Number			07054-1			
Client Identification			TANK 58			
Date Sampled			7-1-93			
Date Analyzed (Method 6010)			7-22-93			
Analyte	Method[a]	Reporting Limit, mg/L	Concentration, mg/L			
Selenium	EPA 6010	0.4	<0.4			
EPA 6010: Dilution Multiplier[b]			1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 1, US EPA November 1990. Extraction by California W.E.T. method, HML Method 910, Revision 0, California Department of Health Services Hazardous Materials Laboratory, June 1988. Results are calculated on a wet weight basis.

b. Indicates the adjustments made for sample dilutions.

GTEL Client Number: PWR01.PWR01
Project I.D.: Powerine Oil Co.
Work Order Number: T307045

ANALYTICAL RESULTS

Volatile Organics in TCLP Leachate[a]
EPA Method 8240[b]

GTEL Sample Number		07045-1	07045-2		
Client Identification		Tank 58	Tank 09		
Date Sampled		7-1-93	7-1-93		
Date Leached		7-9-93	7-9-93		
Date Analyzed		7-12-93	7-12-93		
Analyte	Reporting Limit, mg/L	Concentration, mg/L			
Benzene	0.050	0.29	0.27		
Carbon Tetrachloride	0.050	<0.050	<0.050		
Chlorobenzene	0.050	<0.050	<0.050		
Chloroform	0.050	<0.050	<0.050		
1,2-Dichloroethane	0.050	<0.050	<0.050		
1,1-Dichloroethylene	0.050	<0.050	<0.050		
Methyl ethyl ketone	1.0	<1.0	<1.0		
Tetrachloroethylene	0.050	<0.050	<0.050		
Trichloroethylene	0.050	<0.050	<0.050		
Vinyl Chloride	0.10	<0.10	<0.10		
Dilution Multiplier[c]		1	1		

a. Federal Register, June 29, 1990, 40 CFR, Part 261, Appendix II - Method 1311. These data are corrected for analytical bias as required by Method 1311 by applying a correction determined by matrix spike recovery.

b. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986. All samples analyzed by purge and trap.

c. Indicates the adjustments made for sample dilution.

GTEL Client Number: PWR01.PWR01
Project I.D.: Powerine Oil Co.
Work Order Number: T307045

ANALYTICAL RESULTS

Metals in Sludge
Total Threshold Limit Concentration
California Title 22 (C.A.M.)

GTEL Sample Number			07045-1	07045-2		
Client Identification			Tank 58	Tank 09		
Date Sampled			7-1-93	7-1-93		
Date Analyzed (Method 6010)			7-14-93	7-14-93		
Date Analyzed (Method 7471)			7-15-93	7-15-93		
Analyte	Method[a]	Reporting Limit, mg/kg	Concentration, mg/kg			
Antimony	EPA 6010	20	<20	<20		
Arsenic	EPA 6010	5	<5	6		
Barium	EPA 6010	0.8	79	13		
Beryllium	EPA 6010	0.8	<0.8	<0.8		
Cadmium	EPA 6010	0.4	<0.4	<0.4		
Chromium	EPA 6010	4	34	6		
Cobalt	EPA 6010	4	<4	<4		
Copper	EPA 6010	4	31	43		
Lead	EPA 6010	4	13	12		
Mercury	EPA 7471	0.05	<0.05	<0.05		
Molybdenum	EPA 6010	8	<8	<8		
Nickel	EPA 6010	4	20	7		
Selenium	EPA 6010	5	36	9		
Silver	EPA 6010	4	<4	<4		
Thallium	EPA 6010	10	<10	<10		
Vanadium	EPA 6010	4	88	20		
Zinc	EPA 6010	4	250	49		
EPA 6010: Dilution Multiplier[b]			1	1		
EPA 7471: Dilution Multiplier[b]			1	1		

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 1, US EPA November 1990; digestion by EPA Method 3050. Results are calculated on a wet weight basis.

b Indicates the adjustments made for sample dilutions.

GTEL Client Number: PWR01.PWR01
Project I.D.: Powerine Oil Co.
Work Order Number: T307045

ANALYTICAL RESULTS

Total Recoverable Petroleum Hydrocarbons in Sludge
Modified EPA 418.1[a]/Standard Methods 503E/5520F[b]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Reporting Limit, mg/kg	Concentration, mg/kg	Percent Solids, %
GTEL No.	Client ID						
07045-1	Tank-58	7-1-93	7-15-93	7-16-93	5	4800	NA
07045-2	Tank-09	7-1-93	7-15-93	7-16-93	5	11000	NA

a. EPA 600/4-79-020, March 1983 revision. Extraction by Modified EPA Method 3550. Results are calculated on a wet weight basis.

b. Standard Methods for the Examination of Water and Wastewater, 503E, 16th Edition, 1985; 5520F, 18th Edition, 1992.

NA Not applicable.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900 FAX 714/538-1209

CLIENT

Powerine Oil Co. (1699)
Attn: Judi Gardner
12354 Lakeland Rd.
Santa Fe Springs, CA 90670

LAB NO G80759
REPORTED 11/25/94

SAMPLE Soil
RECEIVED 11/11/94

IDENTIFICATION **SX1079 Scale FR Tank 59**
Date Collected 11/11/94
BASED ON SAMPLE As Sumbitted

CAM INORGANICS	LIMITS TTLC (mg/kg)	LIMITS STLC (mg/l)	RESULTS TTLC (mg/kg)	RESULTS STLC (mg/l)
Antimony	500	15	ND<65	
Arsenic	500	5.0	ND< 2	
Barium	10,000	100	42.4	
Beryllium	**75**	**0.75**	**8.18**	**0.022**
Cadmium	100	1.0	ND< 7.5	
Chromium, Hex.	500	5	ND< 1	
Chromium, Total	2,500	560	275	
Cobalt	8,000	80	46.8	
Copper	**2,500**	**25**	**465**	**1.64**
Fluoride	18,000	180	1.53	
Lead	**1,000**	**5.0**	**64.1**	**0.11**
Mercury	20	0.2	1.70	
Molybdenum	3,500	350	ND< 2.5	
Nickel	**2,000**	**20**	**217**	**1.97**
Selenium	100	1.0	ND<2	
Silver	500	5	ND<5	
Thallium	700	7.0	34	
Vanadium	2,400	24	58.9	
Zinc	5,000	250	394	

ASSOCIATED LABORATORIES, by:

Robert A. Webber
Vice President

RAW/gk

Rev. 11/29/94 RAW/gk

-1 10M

Attachment C

Calscience Environmental Laboratories, Inc.

April 13, 2000

Neil Norcross
CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Subject: **Calscience Work Order No.:** **00-04-0193**
Client Reference: **Sample Analysis**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 04/06/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

William H. Christensen
Quality Assurance Manager

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Date Received: 04/06/00
Work Order No: 00-04-0193
Preparation: TCLP
Method: EPA 8260B

Project: Sample Analysis

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
TK-27093	00-04-0193-4	04/06/00	Solid	04/07/00	04/11/00	000410BT

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	1000	1		ug/L	1,3-Dichloropropane	ND	100	1		ug/L
Benzene	ND	50	1		ug/L	2,2-Dichloropropane	ND	100	1		ug/L
Bromobenzene	ND	100	1		ug/L	1,1-Dichloropropene	ND	100	1		ug/L
Bromochloromethane	ND	100	1		ug/L	c-1,3-Dichloropropene	ND	50	1		ug/L
Bromodichloromethane	ND	100	1		ug/L	t-1,3-Dichloropropene	ND	50	1		ug/L
Bromoform	ND	100	1		ug/L	Ethylbenzene	ND	100	1		ug/L
Bromomethane	ND	100	1		ug/L	2-Hexanone	ND	1000	1		ug/L
2-Butanone	ND	1000	1		ug/L	Isopropylbenzene	ND	100	1		ug/L
n-Butylbenzene	ND	100	1		ug/L	p-Isopropyltoluene	ND	100	1		ug/L
sec-Butylbenzene	ND	100	1		ug/L	Methylene Chloride	ND	1000	1		ug/L
tert-Butylbenzene	ND	100	1		ug/L	4-Methyl-2-Pentanone	ND	1000	1		ug/L
Carbon Disulfide	ND	1000	1		ug/L	Naphthalene	ND	1000	1		ug/L
Carbon Tetrachloride	ND	50	1		ug/L	n-Propylbenzene	ND	100	1		ug/L
Chlorobenzene	ND	100	1		ug/L	Styrene	ND	100	1		ug/L
Chloroethane	ND	100	1		ug/L	1,1,1,2-Tetrachloroethane	ND	100	1		ug/L
Chloroform	ND	100	1		ug/L	1,1,2,2-Tetrachloroethane	ND	100	1		ug/L
Chloromethane	ND	100	1		ug/L	Tetrachloroethene	ND	100	1		ug/L
2-Chlorotoluene	ND	100	1		ug/L	Toluene	100	100	1		ug/L
4-Chlorotoluene	ND	100	1		ug/L	1,2,3-Trichlorobenzene	ND	100	1		ug/L
Dibromochloromethane	ND	100	1		ug/L	1,2,4-Trichlorobenzene	ND	100	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	500	1		ug/L	1,1,1-Trichloroethane	ND	100	1		ug/L
1,2-Dibromoethane	ND	100	1		ug/L	1,1,2-Trichloroethane	ND	100	1		ug/L
Dibromomethane	ND	100	1		ug/L	Trichloroethene	ND	100	1		ug/L
1,2-Dichlorobenzene	ND	100	1		ug/L	Trichlorofluoromethane	ND	1000	1		ug/L
1,3-Dichlorobenzene	ND	100	1		ug/L	1,2,3-Trichloropropane	ND	100	1		ug/L
1,4-Dichlorobenzene	ND	100	1		ug/L	1,2,4-Trimethylbenzene	ND	100	1		ug/L
Dichlorodifluoromethane	ND	100	1		ug/L	1,3,5-Trimethylbenzene	ND	100	1		ug/L
1,1-Dichloroethane	ND	100	1		ug/L	Vinyl Acetate	ND	1000	1		ug/L
1,2-Dichloroethane	ND	50	1		ug/L	Vinyl Chloride	ND	50	1		ug/L
1,1-Dichloroethene	ND	100	1		ug/L	p/m-Xylene	100	100	1		ug/L
c-1,2-Dichloroethene	ND	100	1		ug/L	o-Xylene	ND	100	1		ug/L
t-1,2-Dichloroethene	ND	100	1		ug/L	Methyl-tert-Butyl Ether	ND	100	1		ug/L
1,2-Dichloropropane	ND	100	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	108	86-118		Toluene-d8	103	88-110	
1,4-Bromofluorobenzene	91	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Date Received: 04/06/00
Work Order No: 00-04-0193
Preparation: TCLP
Method: EPA 8260B

Project: Sample Analysis

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
Method Blank	**099-10-006-141**	**N/A**	**Aqueous**	**04/07/00**	**04/11/00**	**000410BT**

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Acetone	ND	1000	1		ug/L	1,3-Dichloropropane	ND	100	1		ug/L
Benzene	ND	50	1		ug/L	2,2-Dichloropropane	ND	100	1		ug/L
Bromobenzene	ND	100	1		ug/L	1,1-Dichloropropene	ND	100	1		ug/L
Bromochloromethane	ND	100	1		ug/L	c-1,3-Dichloropropene	ND	50	1		ug/L
Bromodichloromethane	ND	100	1		ug/L	t-1,3-Dichloropropene	ND	50	1		ug/L
Bromoform	ND	100	1		ug/L	Ethylbenzene	ND	100	1		ug/L
Bromomethane	ND	100	1		ug/L	2-Hexanone	ND	1000	1		ug/L
2-Butanone	ND	1000	1		ug/L	Isopropylbenzene	ND	100	1		ug/L
n-Butylbenzene	ND	100	1		ug/L	p-Isopropyltoluene	ND	100	1		ug/L
sec-Butylbenzene	ND	100	1		ug/L	Methylene Chloride	ND	1000	1		ug/L
tert-Butylbenzene	ND	100	1		ug/L	4-Methyl-2-Pentanone	ND	1000	1		ug/L
Carbon Disulfide	ND	1000	1		ug/L	Naphthalene	ND	1000	1		ug/L
Carbon Tetrachloride	ND	50	1		ug/L	n-Propylbenzene	ND	100	1		ug/L
Chlorobenzene	ND	100	1		ug/L	Styrene	ND	100	1		ug/L
Chloroethane	ND	100	1		ug/L	1,1,1,2-Tetrachloroethane	ND	100	1		ug/L
Chloroform	ND	100	1		ug/L	1,1,2,2-Tetrachloroethane	ND	100	1		ug/L
Chloromethane	ND	100	1		ug/L	Tetrachloroethene	ND	100	1		ug/L
2-Chlorotoluene	ND	100	1		ug/L	Toluene	ND	100	1		ug/L
4-Chlorotoluene	ND	100	1		ug/L	1,2,3-Trichlorobenzene	ND	100	1		ug/L
Dibromochloromethane	ND	100	1		ug/L	1,2,4-Trichlorobenzene	ND	100	1		ug/L
1,2-Dibromo-3-Chloropropane	ND	500	1		ug/L	1,1,1-Trichloroethane	ND	100	1		ug/L
1,2-Dibromoethane	ND	100	1		ug/L	1,1,2-Trichloroethane	ND	100	1		ug/L
Dibromomethane	ND	100	1		ug/L	Trichloroethene	ND	100	1		ug/L
1,2-Dichlorobenzene	ND	100	1		ug/L	Trichlorofluoromethane	ND	1000	1		ug/L
1,3-Dichlorobenzene	ND	100	1		ug/L	1,2,3-Trichloropropane	ND	100	1		ug/L
1,4-Dichlorobenzene	ND	100	1		ug/L	1,2,4-Trimethylbenzene	ND	100	1		ug/L
Dichlorodifluoromethane	ND	100	1		ug/L	1,3,5-Trimethylbenzene	ND	100	1		ug/L
1,1-Dichloroethane	ND	100	1		ug/L	Vinyl Acetate	ND	1000	1		ug/L
1,2-Dichloroethane	ND	50	1		ug/L	Vinyl Chloride	ND	50	1		ug/L
1,1-Dichloroethene	ND	100	1		ug/L	p/m-Xylene	ND	100	1		ug/L
c-1,2-Dichloroethene	ND	100	1		ug/L	o-Xylene	ND	100	1		ug/L
t-1,2-Dichloroethene	ND	100	1		ug/L	Methyl-tert-Butyl Ether	ND	100	1		ug/L
1,2-Dichloropropane	ND	100	1		ug/L						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	108	86-118		Toluene-d8	102	88-110	
1,4-Bromofluorobenzene	91	86-115					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Date Received: 04/06/00
Work Order No: 00-04-0193
Preparation: TCLP
Method: EPA 8270C

Project: Sample Analysis

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
TK-27093	00-04-0193-4	04/06/00	Solid	04/10/00	04/10/00	0004104

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
N-Nitrosodimethylamine	ND	250	1		ug/L	3-Nitroaniline	ND	250	1		ug/L
Aniline	ND	250	1		ug/L	Acenaphthene	ND	250	1		ug/L
Phenol	ND	250	1		ug/L	2,4-Dinitrophenol	ND	500	1		ug/L
Pyridine	ND	250	1		ug/L	4-Nitrophenol	ND	500	1		ug/L
Bis(2-Chloroethyl) Ether	ND	250	1		ug/L	Dibenzofuran	ND	250	1		ug/L
2-Chlorophenol	ND	250	1		ug/L	2,4-Dinitrotoluene	ND	130	1		ug/L
1,3-Dichlorobenzene	ND	250	1		ug/L	2,6-Dinitrotoluene	ND	250	1		ug/L
1,4-Dichlorobenzene	ND	250	1		ug/L	Diethyl Phthalate	ND	250	1		ug/L
Benzyl Alcohol	ND	250	1		ug/L	4-Chlorophenyl-Phenyl Ether	ND	250	1		ug/L
1,2-Dichlorobenzene	ND	250	1		ug/L	Fluorene	ND	250	1		ug/L
2-Methylphenol	270	250	1		ug/L	4-Nitroaniline	ND	250	1		ug/L
Bis(2-Chloroisopropyl) Ether	ND	250	1		ug/L	Azobenzene	ND	250	1		ug/L
3/4-Methylphenol	ND	250	1		ug/L	4,6-Dinitro-2-Methylphenol	ND	500	1		ug/L
N-Nitroso-di-n-propylamine	ND	250	1		ug/L	N-Nitrosodiphenylamine	ND	250	1		ug/L
Hexachloroethane	ND	250	1		ug/L	4-Bromophenyl-Phenyl Ether	ND	250	1		ug/L
Nitrobenzene	ND	250	1		ug/L	Hexachlorobenzene	ND	130	1		ug/L
Isophorone	ND	250	1		ug/L	Pentachlorophenol	ND	500	1		ug/L
2-Nitrophenol	ND	250	1		ug/L	Phenanthrene	ND	250	1		ug/L
2,4-Dimethylphenol	450	250	1		ug/L	Anthracene	ND	250	1		ug/L
Benzoic Acid	ND	500	1		ug/L	Di-n-Butyl Phthalate	ND	250	1		ug/L
Bis(2-Chloroethoxy) Methane	ND	250	1		ug/L	Fluoranthene	ND	250	1		ug/L
2,4-Dichlorophenol	ND	250	1		ug/L	Benzidine	ND	500	1		ug/L
1,2,4-Trichlorobenzene	ND	250	1		ug/L	Pyrene	ND	250	1		ug/L
Naphthalene	ND	250	1		ug/L	Butyl Benzyl Phthalate	ND	250	1		ug/L
4-Chloroaniline	ND	500	1		ug/L	3,3'-Dichlorobenzidine	ND	250	1		ug/L
Hexachloro-1,3-Butadiene	ND	250	1		ug/L	Benzo (a) Anthracene	ND	250	1		ug/L
4-Chloro-3-Methylphenol	ND	250	1		ug/L	Bis(2-Ethylhexyl) Phthalate	ND	250	1		ug/L
2-Methylnaphthalene	ND	250	1		ug/L	Chrysene	ND	250	1		ug/L
Hexachlorocyclopentadiene	ND	2500	1		ug/L	Di-n-Octyl Phthalate	ND	250	1		ug/L
2,4,6-Trichlorophenol	ND	250	1		ug/L	Benzo (b) Fluoranthene	ND	250	1		ug/L
2,4,5-Trichlorophenol	ND	250	1		ug/L	Benzo (k) Fluoranthene	ND	250	1		ug/L
2-Chloronaphthalene	ND	250	1		ug/L	Benzo (a) Pyrene	ND	250	1		ug/L
2-Nitroaniline	ND	250	1		ug/L	Dibenz (a,h) Anthracene	ND	250	1		ug/L
Dimethyl Phthalate	ND	250	1		ug/L	Indeno (1,2,3-c,d) Pyrene	ND	250	1		ug/L
Acenaphthylene	ND	250	1		ug/L	Benzo (g,h,i) Perylene	ND	250	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorophenol	51	21-100		Phenol-d6	34	10-94	
Nitrobenzene-d5	82	35-114		2-Fluorobiphenyl	80	43-116	
2,4,6-Tribromophenol	90	10-123		p-Terphenyl-d14	78	33-141	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Date Received: 04/06/00
Work Order No: 00-04-0193
Preparation: TCLP
Method: EPA 8270C

Project: Sample Analysis

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
Method Blank	096-02-007-329	N/A	Aqueous	04/10/00	04/10/00	0004104

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
N-Nitrosodimethylamine	ND	250	1		ug/L	3-Nitroaniline	ND	250	1		ug/L
Aniline	ND	250	1		ug/L	Acenaphthene	ND	250	1		ug/L
Phenol	ND	250	1		ug/L	2,4-Dinitrophenol	ND	500	1		ug/L
Pyridine	ND	250	1		ug/L	4-Nitrophenol	ND	500	1		ug/L
Bis(2-Chloroethyl) Ether	ND	250	1		ug/L	Dibenzofuran	ND	250	1		ug/L
2-Chlorophenol	ND	250	1		ug/L	2,4-Dinitrotoluene	ND	130	1		ug/L
1,3-Dichlorobenzene	ND	250	1		ug/L	2,6-Dinitrotoluene	ND	250	1		ug/L
1,4-Dichlorobenzene	ND	250	1		ug/L	Diethyl Phthalate	ND	250	1		ug/L
Benzyl Alcohol	ND	250	1		ug/L	4-Chlorophenyl-Phenyl Ether	ND	250	1		ug/L
1,2-Dichlorobenzene	ND	250	1		ug/L	Fluorene	ND	250	1		ug/L
2-Methylphenol	ND	250	1		ug/L	4-Nitroaniline	ND	250	1		ug/L
Bis(2-Chloroisopropyl) Ether	ND	250	1		ug/L	Azobenzene	ND	250	1		ug/L
3/4-Methylphenol	ND	250	1		ug/L	4,6-Dinitro-2-Methylphenol	ND	500	1		ug/L
N-Nitroso-di-n-propylamine	ND	250	1		ug/L	N-Nitrosodiphenylamine	ND	250	1		ug/L
Hexachloroethane	ND	250	1		ug/L	4-Bromophenyl-Phenyl Ether	ND	250	1		ug/L
Nitrobenzene	ND	250	1		ug/L	Hexachlorobenzene	ND	130	1		ug/L
Isophorone	ND	250	1		ug/L	Pentachlorophenol	ND	500	1		ug/L
2-Nitrophenol	ND	250	1		ug/L	Phenanthrene	ND	250	1		ug/L
2,4-Dimethylphenol	ND	250	1		ug/L	Anthracene	ND	250	1		ug/L
Benzoic Acid	ND	500	1		ug/L	Di-n-Butyl Phthalate	ND	250	1		ug/L
Bis(2-Chloroethoxy) Methane	ND	250	1		ug/L	Fluoranthene	ND	250	1		ug/L
2,4-Dichlorophenol	ND	250	1		ug/L	Benzidine	ND	500	1		ug/L
1,2,4-Trichlorobenzene	ND	250	1		ug/L	Pyrene	ND	250	1		ug/L
Naphthalene	ND	250	1		ug/L	Butyl Benzyl Phthalate	ND	250	1		ug/L
4-Chloroaniline	ND	500	1		ug/L	3,3'-Dichlorobenzidine	ND	250	1		ug/L
Hexachloro-1,3-Butadiene	ND	250	1		ug/L	Benzo (a) Anthracene	ND	250	1		ug/L
4-Chloro-3-Methylphenol	ND	250	1		ug/L	Bis(2-Ethylhexyl) Phthalate	ND	250	1		ug/L
2-Methylnaphthalene	ND	250	1		ug/L	Chrysene	ND	250	1		ug/L
Hexachlorocyclopentadiene	ND	2500	1		ug/L	Di-n-Octyl Phthalate	ND	250	1		ug/L
2,4,6-Trichlorophenol	ND	250	1		ug/L	Benzo (b) Fluoranthene	ND	250	1		ug/L
2,4,5-Trichlorophenol	ND	250	1		ug/L	Benzo (k) Fluoranthene	ND	250	1		ug/L
2-Chloronaphthalene	ND	250	1		ug/L	Benzo (a) Pyrene	ND	250	1		ug/L
2-Nitroaniline	ND	250	1		ug/L	Dibenz (a,h) Anthracene	ND	250	1		ug/L
Dimethyl Phthalate	ND	250	1		ug/L	Indeno (1,2,3-c,d) Pyrene	ND	250	1		ug/L
Acenaphthylene	ND	250	1		ug/L	Benzo (g,h,i) Perylene	ND	250	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorophenol	47	21-100		Phenol-d6	35	10-94	
Nitrobenzene-d5	87	35-114		2-Fluorobiphenyl	73	43-116	
2,4,6-Tribromophenol	77	10-123		p-Terphenyl-d14	81	33-141	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-04-0193

Qualifier	Definition
3	Spike or Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
ND	Not detected at indicated reporting limit.

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 4/6/00

Page 1 of 1

LABORATORY CLIENT: CENCO Refining Company		CLIENT PROJECT NAME / NUMBER:	P.O. NO.:
ADDRESS: 12345 Lakeland Rd		PROJECT CONTACT: Neil Narcross	QUOTE NO.:
CITY: Santa Fe Springs	STATE: CA	ZIP: 90670	SAMPLER(S): (SIGNATURE)
TEL: 562 944-6111	FAX: 562 902-2911	E-MAIL:	LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 6/6/00

SPECIAL INSTRUCTIONS
Please turnaround sample CPCE-2A in 72 Hrs. all others normal T/A

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	RCRA Metals (TTLC)	Cr+6 (7196)	TCLP VOCs List	TCLP <VOCs List	Aquatic Bioassay Florida EP
	CPCE-2A	West Wemco	4/6	1215	S	1					✓															
	IC-17	NWAA	4/6	1430	L	1					✓															
	Exc-1	NWAA	4/6	940	S	1					N/A	N/A										✓	✓			✓
	TK-27093	East Tank Farm	4/6	1400	S	1					N/A	N/A												✓	✓	✓

Relinquished by: (Signature)	Received by: (Signature)	Date: 4/6/00	Time: 1657
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

02/01/99 Revision

APR. 7. 2000 8:05AM NO. 4991 P. 7

Q&Q Graphic (714) 898-9771

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 4/6/00

Page 1 of 1

LABORATORY CLIENT: CENCO Refining Company
ADDRESS: 12345 Lakeland Rd
CITY: Santa Fe Springs STATE: CA ZIP: 90670
TEL: 562 944-6111 FAX: 562 903-8911 E-MAIL:

CLIENT PROJECT NAME / NUMBER:
PROJECT CONTACT: Neil Norcross
SAMPLER(S): (SIGNATURE)

P.O. NO.:
QUOTE NO.:
LAB USE ONLY: 0 4 - 0 1 9 3

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 6/6/00

SPECIAL INSTRUCTIONS
Please turnaround sample CPCE-2A in 72 Hrs. all others normal T/A

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (6081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	RCRA Metals (TCLP)	Cr+6 (7196)	TCLP VOC List	TCLP SVOC List	Aquatic Bioassay Florida EPA
	CPCE-1A	West Wemco	4/6	1215	S	1					✓															
	IC-17	NWAA	4/6	1430	L	1					✓															
	Exc-1	NWAA	4/6	940	S	1					✓	✓										✓	✓			
	TK-2093	East Tank Farm	4/6	1400	S	1					✓	✓												✓	✓	✓

Relinquished by: (Signature)	Received by: (Signature)	Date: 4/6/00	Time: 1657
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: 4/6/00	Time: 1730

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

02/01/99 Revision

Q&Q Graphic (714) 895-9703

Calscience Environmental Laboratories, Inc.

April 14, 2000

Neil Norcross
CENCO Refining Company
12345 Lakeland Road
PO Box 2108
Santa Fe Springs, CA 90670

Subject: **Calscience Work Order No.: 00-04-0193**
Client Reference: Sample Analysis

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 04/06/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jody McInerney
Project Manager

William H. Christensen
Quality Assurance Manager

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

CENCO Refining Company	Date Sampled:	04/06/00
12345 Lakeland Road	Date Received:	04/06/00
P. O. Box 2108	Date Analyzed:	04/07-11/00
Santa Fe Springs, CA 90670		
	Work Order No.:	00-04-0193
Attn: Neil Norcross	Method: Acute Aquatic 96 Hr LC50 Bioassay	
RE: Sample Analysis	Page 1 of 1	

Testing was conducted in accordance with State of California Department of Fish and Game approved procedures using *Pimephales promelas* (Fathead minnows). The average length and average weight of the fish used were 44 mm and 0.45 grams, respectively. All concentrations are reported in mg/L (ppm).

Sample Number	Concentration	Mortality Rate (%)
TK-27093	750	35
TK-27093	250	10

ND denotes not detected at indicated reportable limit.

Each sample was received by CEL chilled, intact, and with chain-of-custody attached.

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD.

Date 4/6/00

Page 1 of 1

LABORATORY CLIENT: CENCO Refining Company	CLIENT PROJECT NAME / NUMBER:
ADDRESS: 12345 Lakeland Rd	PROJECT CONTACT: Neil Norcross
CITY: Santa Fe Springs STATE: CA ZIP: 90670	SAMPLER(S): (SIGNATURE)
TEL: 562.944-6111 FAX: 562.902-8911 E-MAIL:	P.O. NO.: QUOTE NO.: LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 6/6/00

SPECIAL INSTRUCTIONS
Please turnaround sample CPCE-2A in 72 Hrs. all others normal T/A

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	RCRA Metals (TTLC)	Cr+6 (7196)	TCLP VOCs List	TCLP SVOCs List	Aquatic Bioassay 96 Hr Florida EPA
	CPCE-2A	West Wemco	4/6	1215	S	1					✓															
	IC-17	HWAA	4/6	1430	L	1					✓															
	Exc-1	HWAA	4/6	940	S	1					✓	✓										✓	✓			
	TK-27093	East Tank Farm	4/6	1400	S	1					✓	✓												✓	✓	✓

Relinquished by: (Signature)	Received by: (Signature)	Date: 4/6/00 Time: 1657
Relinquished by: (Signature)	Received by: (Signature)	Date: Time:
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date: Time:

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Yellow and Pink copies respectively.

02/01/99 Revision

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 4/6/00

Page 1 of 1

LABORATORY CLIENT: CENCO Refining Company
ADDRESS: 12345 Lakeland Rd
CITY: Santa Fe Springs STATE: CA ZIP: 90670
TEL: 562 944-6111 FAX: 562 903-8911 E-MAIL:

CLIENT PROJECT NAME / NUMBER:
PROJECT CONTACT: Neil Norcross
SAMPLER(S): (SIGNATURE)
P.O. NO.:
QUOTE NO.:
LAB USE ONLY 0 4 - 0 1 9 3

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SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	RCRA Metals (6010)	Cr+6 (7196)	TCLP Volatiles	TCLP SVOC List	Aquatic Bioassay 96 Hr Flow-Thr
CPCE-1A	West Wemco	4/6	1215	S	1					✓															
IC-17	NWAA	4/6	1430	L	1					✓															
Exc-1	NWAA	4/6	940	S	1					✓	✓										✓	✓			
TK 3033	East Tank Farm	4/6	1400	S	1					✓	✓												✓	✓	✓

Relinquished by: (Signature)
Received by: (Signature)
Date: 4/6/00 Time: 1657

Relinquished by: (Signature)
Received by: (Signature)
Date: Time:

Relinquished by: (Signature)
Received for Laboratory by: (Signature)
Date: 4/6/00 Time: 1730

White with Report, Canary - Field Copy, Pink - Client

CalQ Graphic (714) 891-9702